IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

GUSTAFSON — Atty. Ref.: 4010-9

Serial No. 09/957,457 — Group: 3691

Filed: September 21, 2001 — Examiner: Liu, I Jung

For: AN EFFICIENT ELECTRICITY SYSTEM

* * * * * * * * * * *

February 29, 2008

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

DECLARATION UNDER RULE 131 SWEARING BEHIND US PATENT APPLICATION 2002/0019802 TO MALME ET AL

I, Leif Gustafson, declare as follows:

1. I am inventor of the above-identified US application serial no. 09/957,457, filed on September 21, 2001.

2. I conceived in Sweden the invention recited in at least claims 11, 16, 21, and 25 in the above-identified application prior to September 18, 2001, the filing date of the Malme patent application, and diligently worked in Sweden from prior to September 18, 2001 until the filing of the above-identified application on September 21, 2001 to constructively reduce to practice the invention recited in at least claims 11, 16, 21, and 25 in the above-identified application.

3. I have reviewed the Malme provisional application 60/223,419, (a copy attached as exhibit A), filed on August 7, 2000 and the Examiner's rejection based on Malme dated September 25, 2007. The Malme provisional application 60/223,419 is simply a marketing document outlining a business plan. Comparing the Malme provisional application 60/223,419 with the Malme published patent application 2002/0019802 reveals that the Malme provisional application 60/223,419 in no way resembles and does not provide support for the text and figures in the Malme published patent application 2002/0019802 relied upon in the Examiner's rejection. Thus, the effective filing date of the Malme published patent application 2002/0019802 is September 18, 2001, three days prior to the filing date of the above-identified application.

3. My conception of the invention recited in at least claims 11, 16, 21, and 25 in the above-identified application was at least described in attached Exhibits B and C prior to September 18, 2001. Exhibit B is an invention disclosure that I drafted prior to September 18, 2001 evidencing conception of my invention prior to September 18, 2001. Exhibit C is a partial draft patent application provided to me from an in-house OMX patent attorney to me prior to September 18, 2001 that also evidences conception of my invention prior to September 18, 2001.

4. I diligently worked to constructively reduce to practice the invention recited in at least claims 11, 16, 21, and 25 in the above-identified application from prior to September 18, 2001 up to the filing of the above-identified application on September 21, 2001, as can be seen in Exhibits D and E. I was working to finalize the application with the in-house OMX patent attorney from just prior to September 18, 2001 until September

20, 2001 when the patent application was sent to a Swedish patent law firm, Bergenstrahle & Lindvall AB for it to handle filing of the application in the U.S. Exhibit D is an email in Swedish dated September 20, 2001 to Bergenstrahle & Lindvall AB evidencing that request. The facsimile letter dated September 21, 2001, attached as Exhibit E, is from Bergenstrahle & Lindvall AB to U.S. patent counsel Nixon & Vanderhye P.C. requesting filing of the application on September 21, 2001, which it was. Thus, I was diligent in constructively reducing my invention to practice just before September 18, 2001 until the filing date of September 21, 2001.

5. I do not know and do not believe that the invention disclosed and claimed in the above-identified application has been in public use or on sale in the United States or patented or described in a printed publication in the United States or any country foreign thereto for more than one year prior to the above application filing date. I have never abandoned the invention described and claimed in the above application.

6. All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Leif Gustafson

March 14, 2008
Date

Enclosed:

Exhibits A-E

09-19-00 A- Prov

Please type a plus sign (+) inside this box → [+]

Docket Number:	10602/31538

PROVISIONAL APPLICATION FOR PATENT COVER SHEET (Small Entity)

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

09/18/00 JC892 U.S. PTO

JC892 U.S. PTO 60/233419 09/18/00

INVENTOR(S)/APPLICANT(S)		
Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Ross	Malme	5883 Glenridge Drive, NE, Plaza 400, Suite 180, Atlanta, GA 30328

☐ *Additional inventors are being named on page 2 attached hereto*

TITLE OF THE INVENTION (280 characters max)

VIRTUAL UTILITY BUSINESS MODEL

CORRESPONDENCE ADDRESS

Direct all correspondence to:

☐ Customer Number [ ] → *Place Customer Number Bar Code Label here*

OR

☒ Firm or Individual Name	Brian J. Anderson - Morris, Manning & Martin, LLC				
Address	1600 Atlanta Financial Center				
Address	3343 Peachtree Road, NE				
City	Atlanta	State	GA	ZIP	30326-1044
Country	USA	Telephone	(404) 504-7748	Fax	(404) 364-4578

ENCLOSED APPLICATION PARTS *(check all that apply)*

☒ Specification	*Number of Pages*	5	☒ Small Entity Statement		
☒ Drawing(s)	*Number of Sheets*	29	☐ Other (specify)		

METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT *(check one)*

		FILING FEE AMOUNT ($)
☒ A check or money order is enclosed to cover the filing fees		
☐ The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number:		$75.00

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No.

☐ Yes, the name of the U.S. Government agency and the Government contract number are: _____

Respectfully submitted,

SIGNATURE _____ Date 9/18/00

TYPED or PRINTED NAME Brian J. Anderson REGISTRATION NO. *(if appropriate)* 43,470

TELEPHONE (404) 504-7748

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, DC 20231

Docket Number:	10602/31538

PROVISIONAL APPLICATION FOR PATENT COVER SHEET (Small Entity)

INVENTOR(S)/APPLICANT(S)		
Given Name (first and middle [if any])	Family Name or Surname	Residence (city and either State or Foreign Country)

Certificate of Mailing by Express Mail

I certify that this application and enclosed fee is being deposited on 9/18/00 with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Signature of Person Mailing Correspondence

Brian J. Anderson

Typed or Printed Name of Person Mailing Correspondence

EL632555864US

"Express Mail" Mailing Label Number

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

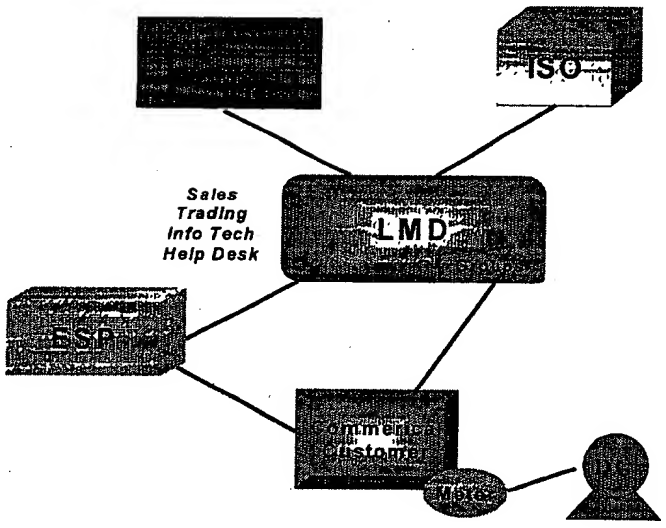
SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, DC 20231

Retx.com Virtual Utility Business Model

The virtual utility concept maximizes the functionality of the Retx.com Load Management Dispatcher (LMD) product, and creates a market opportunity for the trading exchange, Independent System Operator (ISO), Energy Service Provider (ESP) and the ESP customer. It heeds the call from government, consumer advocates and environmental groups to utilize emerging technologies to resolve the power supply issues across the country. The use of Internet-based applications and contributions from various energy organizations enabled Retx.com to create this virtual utility.

The virtual utility receives capacity and energy from customers who are willing to curtail energy usage when market prices are high. It does not own any generating resources. The virtual utility resells the energy into the wholesale energy market at prevailing market prices, functioning as a generation clearinghouse.

The graphic illustrates the participants involved in the virtual utility model, and denotes how LMD is the clearinghouse for this market solution. Based on extensive interaction with market participants over the past year, Retx.com estimates a worth of at least $100,000K per MW per season to an ISO. The ISO would have the capacity to count LMD resources as reserves whether they are used or not. This fiscal windfall is in addition to the value proposition to the ESP for the market-based solution provided by the virtual utility. The virtual utility would also enable ESPs to offer a congestion management tool in the spring and fall seasons for maintenance scheduled on generation.



The attached business case is based on two possible market prices: California and New England. These two markets were chosen because of the availability of hourly price data for the past twelve months. The respective market prices are applied to a geographic area where the virtual utility would obtain 10,000MW of curtailable load. However, this amount of load would not be available within the area defined by each price. Our assumption is that these market prices correctly estimate the price for a large geographic region. Also, price caps were instituted in

California during this period, progressively lowering the highest market price to $250/MWh. The profitability of the virtual utility will be higher in jurisdictions without a predetermined ceiling. The worksheets include graphs of the market prices for both California and NEPOOL.

A simple revenue and expense model was developed. The underlying logic assumes that a customer is willing to curtail 20% of its consumption whenever the virtual utility is willing to pay two times the customer's normal retail rate. It becomes profitable for the virtual utility to offer to buy whenever the market price exceeds 2 * Average Industrial Rate + Retx.com Per MWh Fee. Those two fees comprise the variable cost for the virtual utility. The revenue number is the market price of selling 10,000MW of energy into the marketplace whenever the price exceeds this threshold.

The expenses for the virtual utility include:

1. Retx.com Subscription Fee – $5,000 monthly base charge.
2. Payments to Customers – Compensation the virtual utility must pay to its customer base.
   (2 * Average Industrial Rate * 10,000 MWh for each profitable hour)
3. Metering Fees – Calculated by applying the standard Retx.com metering fee of $50/meter/month to the number of customers required to obtain 10,000MW of capacity. This number can be adjusted by changing the "Average size of customers" on the Assumptions worksheet.
4. Retx.com per MWh Fee – Captures the $50 fee per MWh sold by Retx.com.
5. Marketing costs are assumed to be 15% of revenue.
6. Administrative costs are assumed to be 5% of revenue.

Please note that the figures represented in these cases are typical of both markets and accurate for forecasting purposes, but by no means absolute prices.

Retx.com believes the virtual utility is an excellent economic, environmental and customer-centric opportunity for the energy industry. The example for California provides greater profitability because the market has experienced sustained periods of elevated prices and the average industrial rate is lower. Power supply concerns in the Northeast, Midwest and Northwest during the past three summers make these regions particularly susceptible to economic and reliability impair. Opportunities and profitability for the virtual utility will parallel the geographic area in which it operates.

To summarize, the virtual utility produces considerable revenues for Retx.com from two substantive market entities, the ISO and ESP. And this generation clearinghouse is not reliant on the deregulation of the energy industry.

Virtual Utility Business Model

The attached spreadsheet model outlines a business case for a virtual utility. The virtual utility does not own any generating resources. Instead, it receives its capacity and energy from customers who are willing to curtail energy usage when market prices are high. The virtual utility would then resell the energy into the wholesale energy market at prevailing market prices. A likely candidate for this business model is a marketing company with a large geographic area. It will take a large area of the United States in order to obtain 10,000MW of curtailable load. The marketer's large geographic size will allow it to sell energy in the markets where it becomes available.

The business case is built around two possible market prices: California and New England. These two markets were chosen because of the availability of hourly price data for the past twelve months. In each example, the time period considered is from 9/1/99 until 8/31/00. This time period was chosen so that the most recent summer data would be captured. The respective market prices are applied to a large enough geographic area such that the virtual utility would be able to obtain 10,000MW of curtailable load. It's clear that this amount of load would not be available within the area defined by each price. Therefore, for the sake of this business model, it's assumed that those market prices correctly estimate the price for a large geographic region. Please note that during this period of time, price caps were instituted in California. They progressively lowered the highest market price to $250/MWh—the profitability of the virtual utility would have been higher if these price caps had not been instituted. The worksheets include graphs of the market prices for both California and NEPOOL. The California price caps can be observed easily.

A simple revenue and expense model was developed. The underlying logic assumes that a customer is willing to curtail 20% of its consumption whenever the virtual utility is willing to pay two times the customer's normal retail rate. Therefore, it becomes profitable for the virtual utility to offer to buy whenever the market price exceeds 2 x <Average Industrial Rate> + <Retx.com Per MWh Fee>. Those two fees comprise the variable cost for the virtual utility.

The revenue number is the market price of selling 10,000MW of energy into the marketplace whenever the price exceeds the threshold described in the previous paragraph.

The expenses for the virtual utility include:

1. Retx.com Subscription Fee – This is the $5,000 monthly base charge.
2. Payments to Customers – This includes the compensation the virtual utility must pay to its customer base. This number is 2 x <Average Industrial Rate> * 10,000 MWh for each profitable hour.
3. Metering Fees – This number is calculated by applying the standard Retx.com metering fee of $50/meter/month to the number of customers required to obtain 10,000MW of capacity. This number can be adjusted by changing the "Average size of customers" on the Assumptions worksheet.

4. Retx.com per MWh Fee – This expense item captures the $50 fee per MWh sold by Retx.com.
5. Marketing costs are assumed to be 15% of revenue.
6. Administrative costs are assumed to be 5% of revenue.

Conclusions:

The virtual utility does appear to be an excellent opportunity for a marketing company. The example for California provides greater profitability because the market has experienced sustained periods of elevated prices and the average industrial rate is lower. Therefore, more opportunities for curtailment are available.

In conclusion, the opportunities and profitability for the virtual utility will be very dependent on the geographic area in which it operates.

Possible refinements to the model:

Using actual market prices from a larger geographic area to ensure enough load is available to provide a 10,000MW virtual utility.

Enhancing the financial statements to reflect a gradual ramping of revenue and expense as would be seen by a virtual utility upon startup.

Estimating the change in market place to reflect the impact of the curtailed load. This analysis doesn't recognize the impact that 10,000MW of additional resources will have on the market price. Therefore, the financials likely overestimate the potential revenues and profitability of the virtual utility.

Consider different compensation models for consumers. For instance, instead of compensating the consumer with two times their normal rate, one could consider paying them 50% or 75% of the actual market price.

Assumptions

Size of Virtual Utility (amount of curtailable load available):	10000 MW	
Percentage of load average customer is willing to curtail:	20%	
Average size of customers:	1 MW	Based on the following assumptions: California has 39,90 Industrial load comprises 26% of the 45,000MW system lo
Retx.com subscription fee:	$5,000.00 /month	
Retx.com Per Meter fee:	$50.00 /month	
Retx.com Per MWh traded fee:	$50.00 /MWh	
Retx.com Per MW-year capacity fee:	$5,000.00 /MW-year	
Marketing Cost (as a % of revenue)	15%	
General Administration (as a % of revenue)	5%	
Percent of Capacity Receipts Disbursed to Customers	50%	

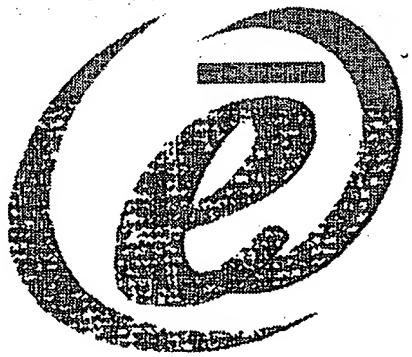
Rētx.com℠

Your Retail Energy Transaction Exchange

"Our Business is Delivering Your Business"

June 2000

Rētx.com



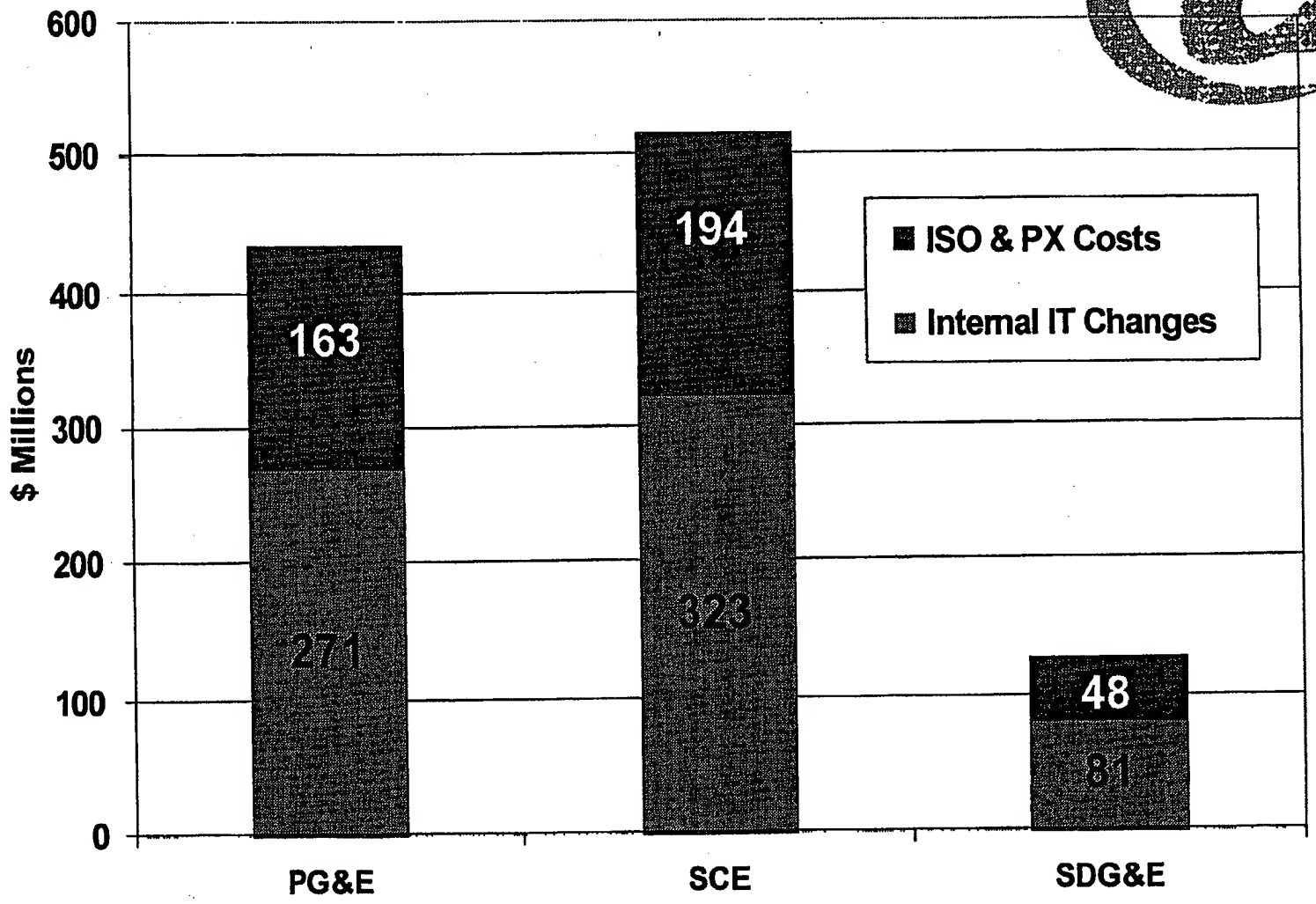
Current Situation

Retx.com Business Model

VISA	Responsibilities	Retx.com
• Clearinghouse operation • Settlements and billing • Reconciliation of accounts • Set standards • Credit operations • Brand Fidelity	Clearinghouse Functionality	• Enrollments • Settlement of accounts • Transaction standards • Common Usage Information • Compliance & Protection • Meter/asset management
• Banks	Clients	• Utilities (UDCs) • Retailers (ESPs)
• Card issuance • Customer Acquisition • Value Added Services • Affinity Programs	Competition	• Electricity and gas • Customer acquisition and retention • Value added services • Affinity programs
• Look and feel • Multiple cards • Transaction standards • Credit operations	Cooperation	• Meter information • Customer Billing Information • Credit Operations • Regulatory Compliance • System Integrity
• Merchant POS	Point of Sale	• Meter

Retx.com

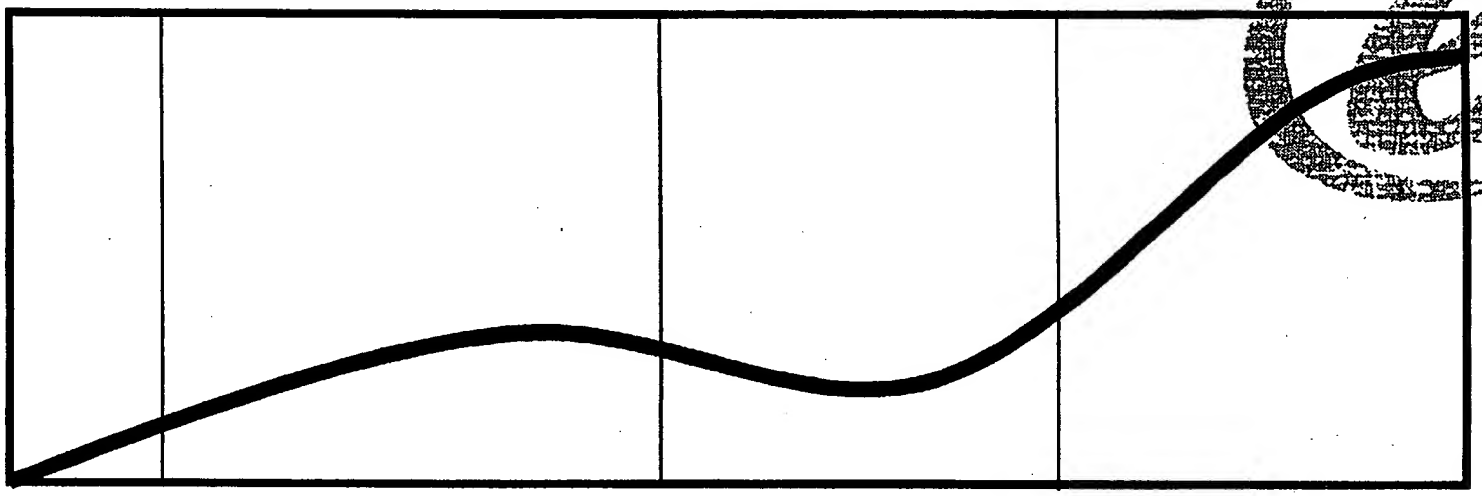
California Market Development Costs - Are these Sustainable?



Retx.com

Source: California PUC

Retail Energy Market Lifecycle



Phase I: Market Creation

18 months

- UDC resistance
- Framework development
- Business roles definition
- Stakeholder economics

Phase II:

Market Develops

6 to 9 months

- System integrity check
- Value proposition to rate payer determined by percent switched
- Market validation of ESP

Phase III:

Market Adjusts and Restructures

12 months

- Re-evaluate all business rules
- Unbundling revenue cycle services
- Technology change
- Competitive Transition Charge ("CTC") restructuring

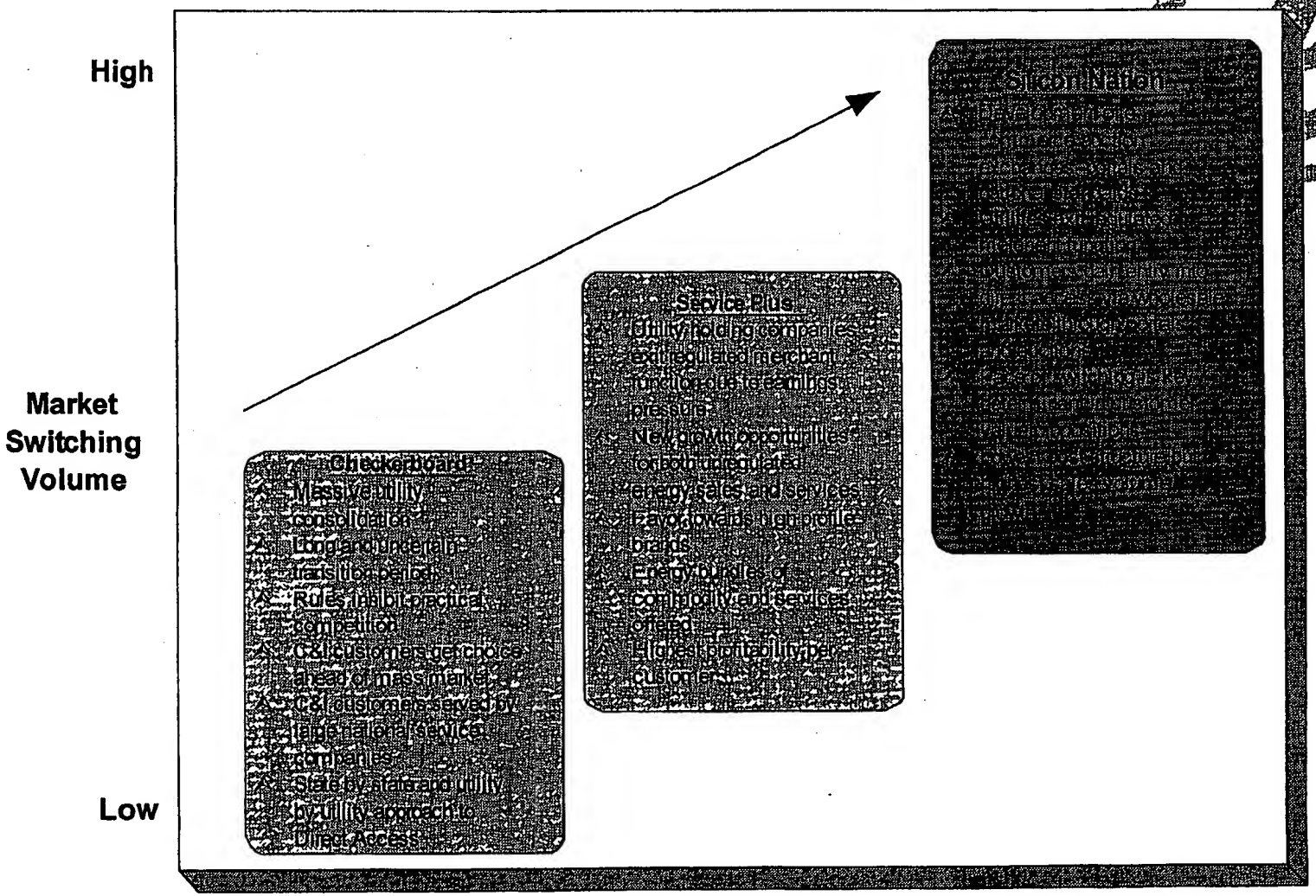
Phase IV:

Steady State

- ESP consolidation
- UDC consolidation
- Full unbundling
- Full e-business model
- Silicon Nation

Retx.com

Paths to Retail Competition



Influence of Economical, Technological, e-business and other Forces

Reference: CERA, Arthur Andersen, EDS

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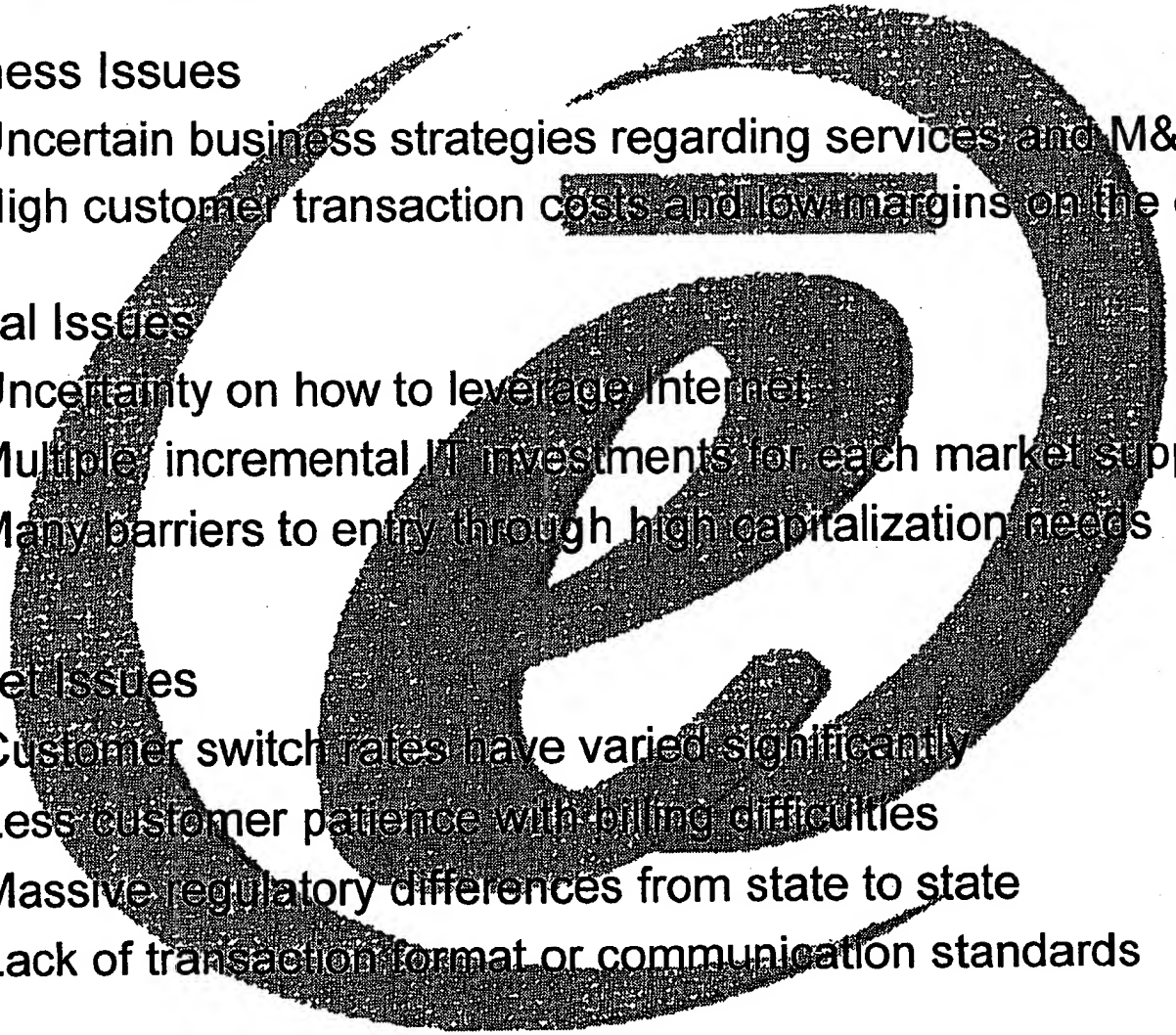
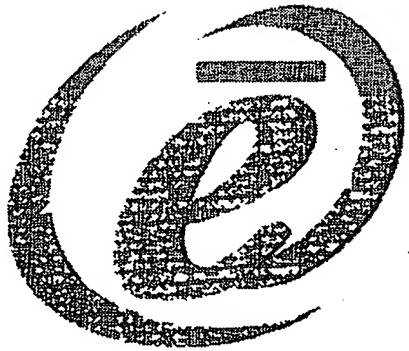
Challenge: How to Deliver Value to Your Customers?



- Business Issues
  - Uncertain business strategies regarding services and M&A
  - High customer transaction costs and low margins on the commodity
- Capital Issues
  - Uncertainty on how to leverage Internet
  - Multiple incremental IT investments for each market supported
  - Many barriers to entry through high capitalization needs
- Market Issues
  - Customer switch rates have varied significantly
  - Less customer patience with billing difficulties
  - Massive regulatory differences from state to state
  - Lack of transaction format or communication standards



Clearinghouse for Retail Energy Market

Retx.com

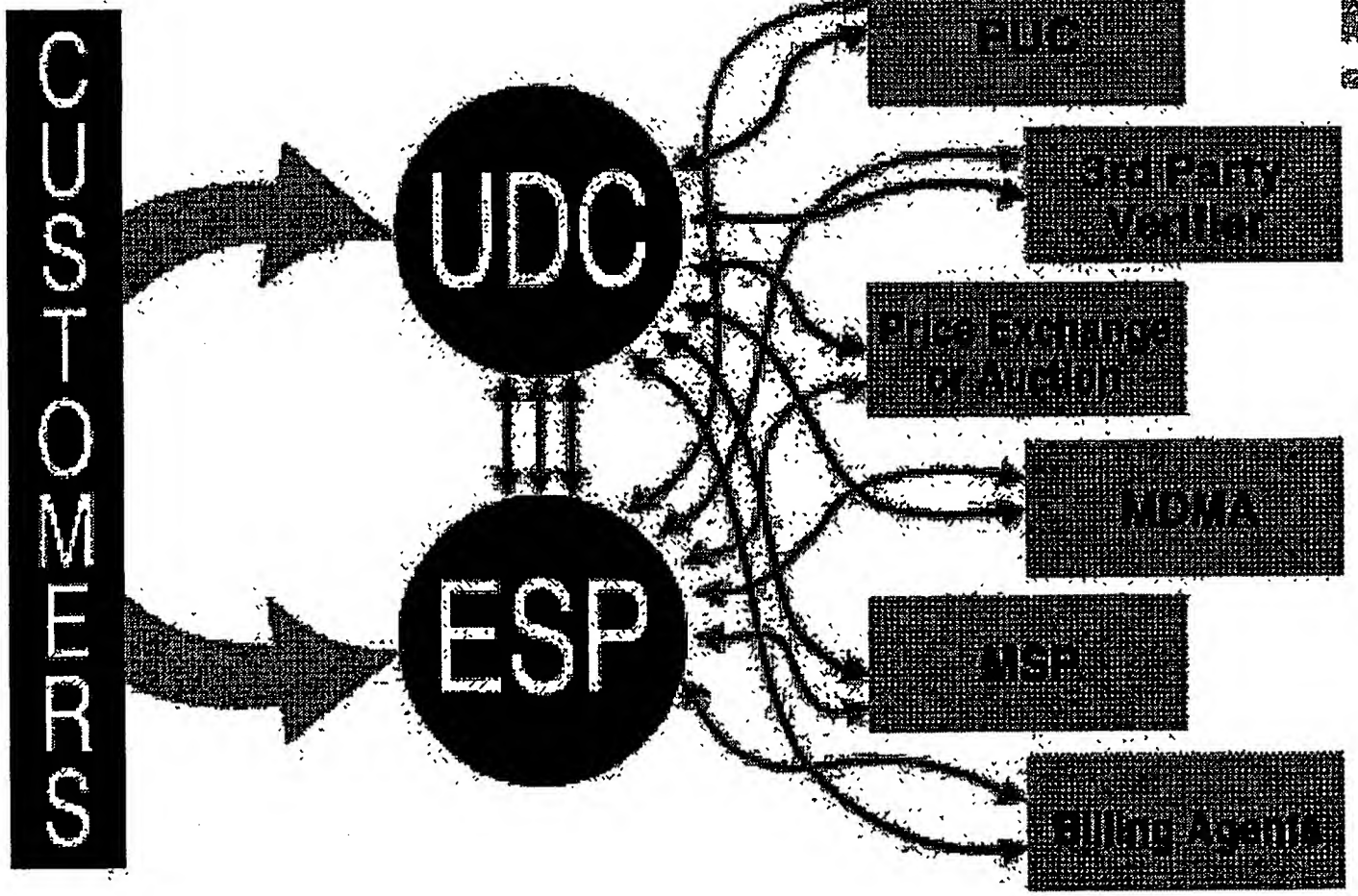
PROPRIETARY AND CONFIDENTIAL

Retx.com

… is a neutral and independent transaction clearinghouse that creates a collaborative e-business trading network to facilitate the transition to a competitive retail energy industry.

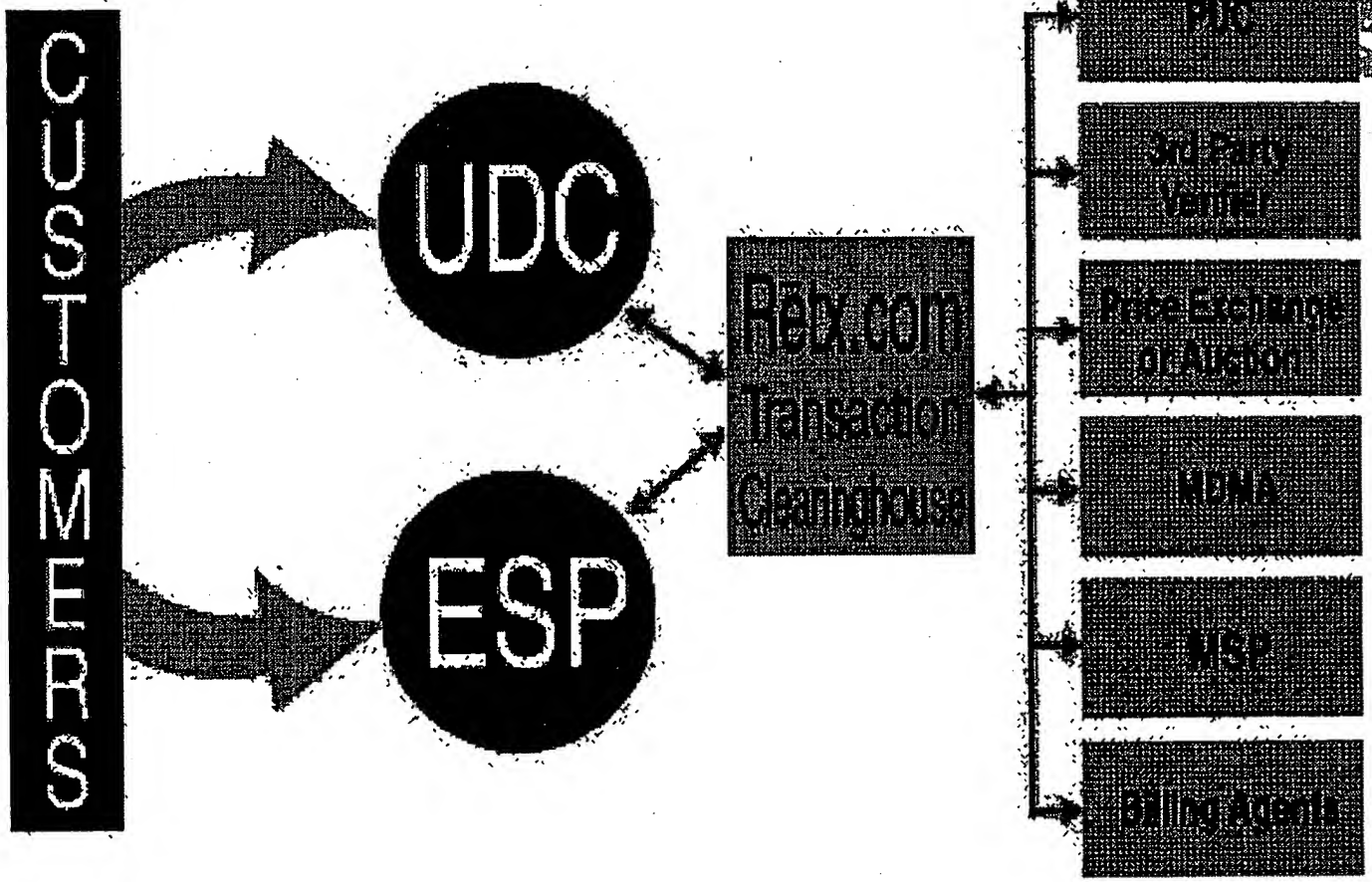
… is a full service application service provider using the best B2B Internet technology available to provide a secure, efficient and cost effective transaction network for UDCs and ESPs.

Information Flow in Deregulated Market



Retx.com

Information Flow in Deregulated Market with Retx.com



Retx.com

Advantages of the Clearinghouse Model

- Business Advantages
  - Lower barrier to entry in new markets
  - Focus on core business
  - Modular fee structure based on the selected applications
  - Lower cost per transaction improving margins
- Capital Advantages
  - Lower capital investment eliminating large IT expenditures
  - Avoided operating costs
  - Convert fixed to variable costs
  - Reduce cost of technology development and support
- Market Advantages
  - Mitigate scheduling, data quality and validation risks
  - Eliminate need to track regulatory changes

e-business Model

Retx.com

Retail Energy and the Internet

"Business-to-business e-commerce will provide the most value and demonstrate the greatest impact in specific industries that exhibit some or all of the following market characteristics.....

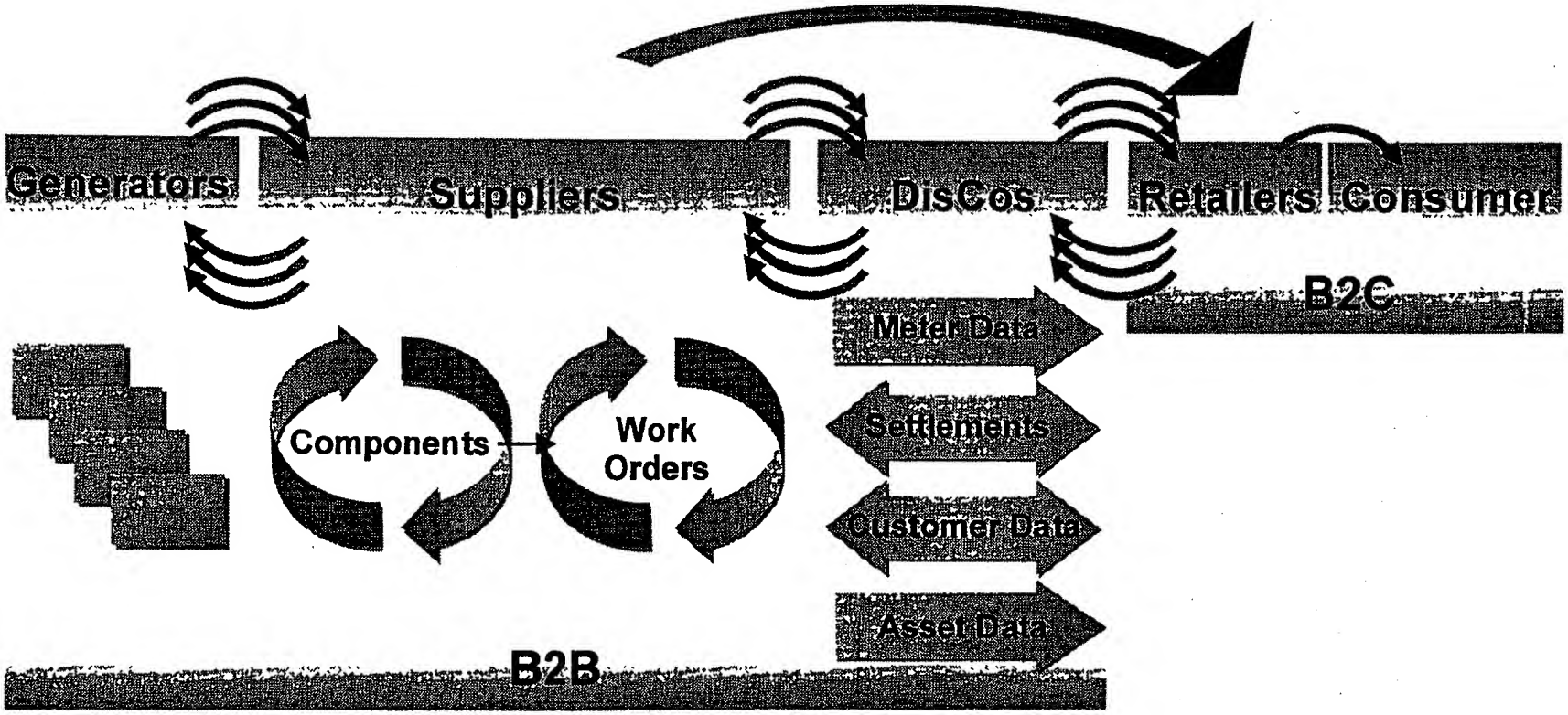
- Fragmentation,
- Historical reliance on technology,
- Low tactile products,
- Perishable products,
- Repetitive purchases,
- Commodity products,
- High velocity of information change
- Low margin

Source: Yankee Group

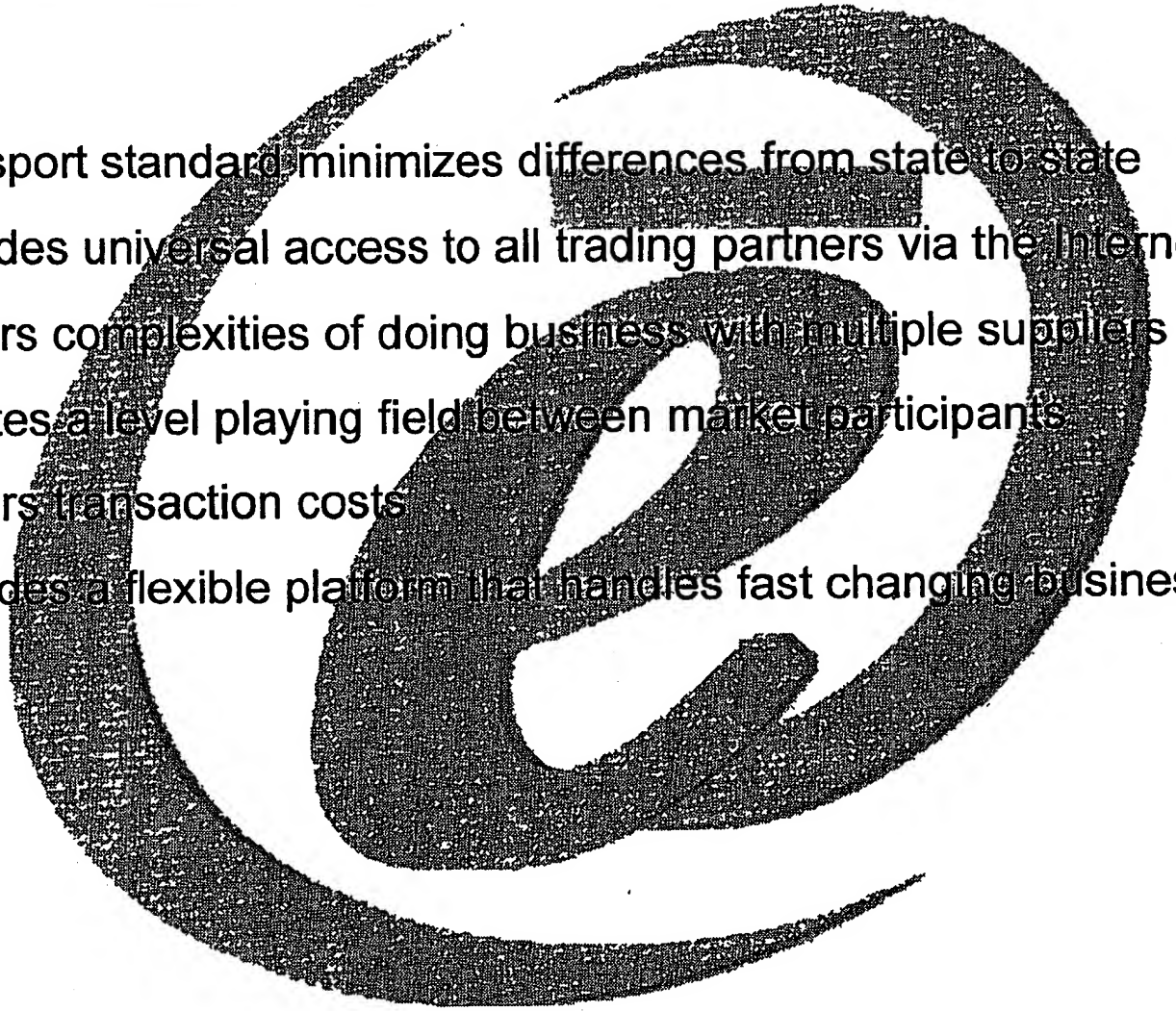
Conclusion: The Retail Energy industry is at ***Ground Zero*** of a very significant industry transformation.

B2B - Myriad Transactions and Spans Multiple Parties

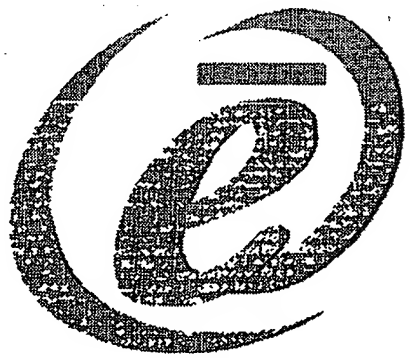
- B2B targets the unique business transactions along each phase of the value chain — all of which occur before a single B2C transaction



e-business: Internet-based Trading Exchange Benefits



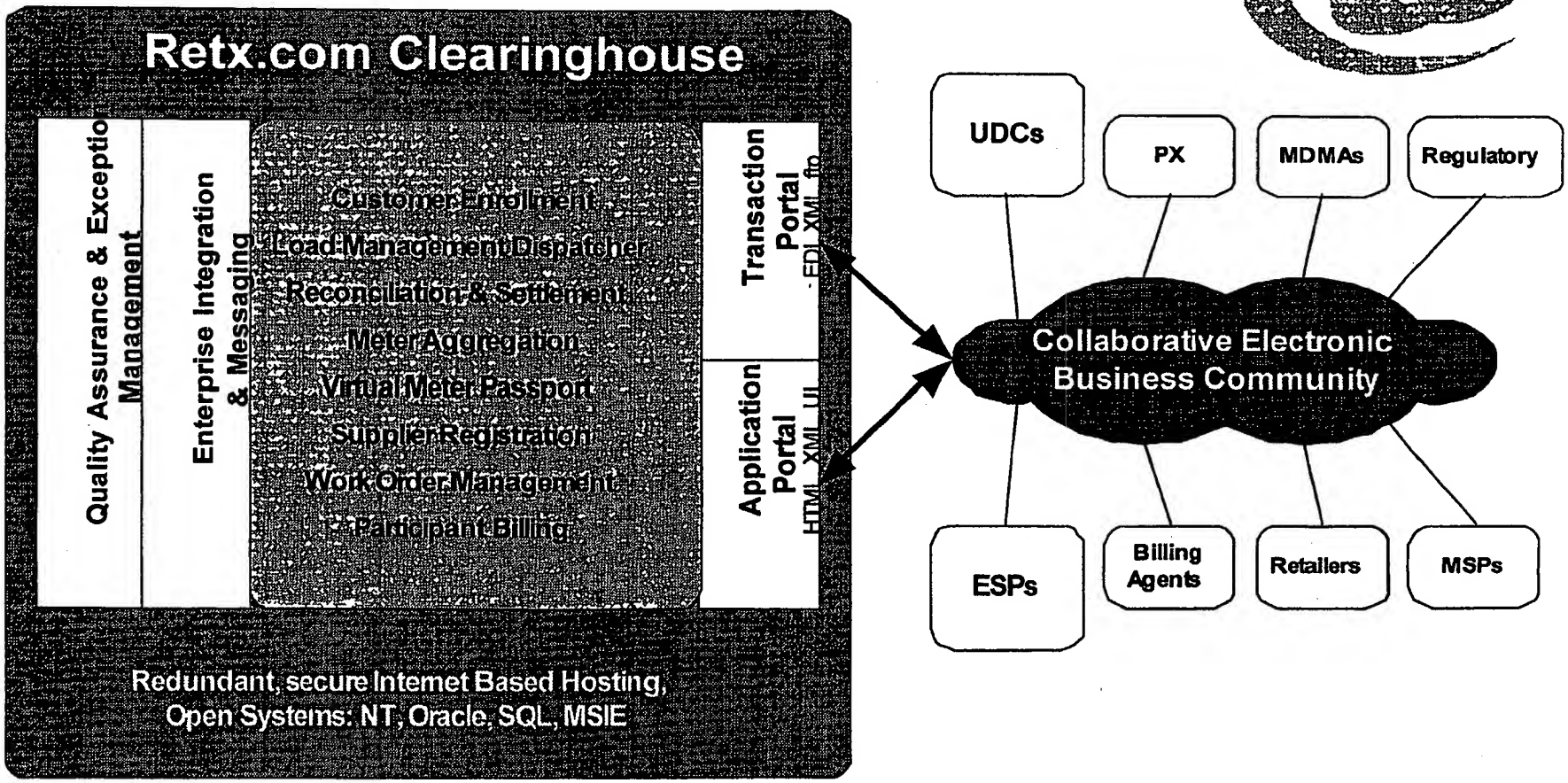
- Transport standard minimizes differences from state to state
- Provides universal access to all trading partners via the Internet
- Lowers complexities of doing business with multiple suppliers
- Creates a level playing field between market participants
- Lowers transaction costs
- Provides a flexible platform that handles fast changing business needs



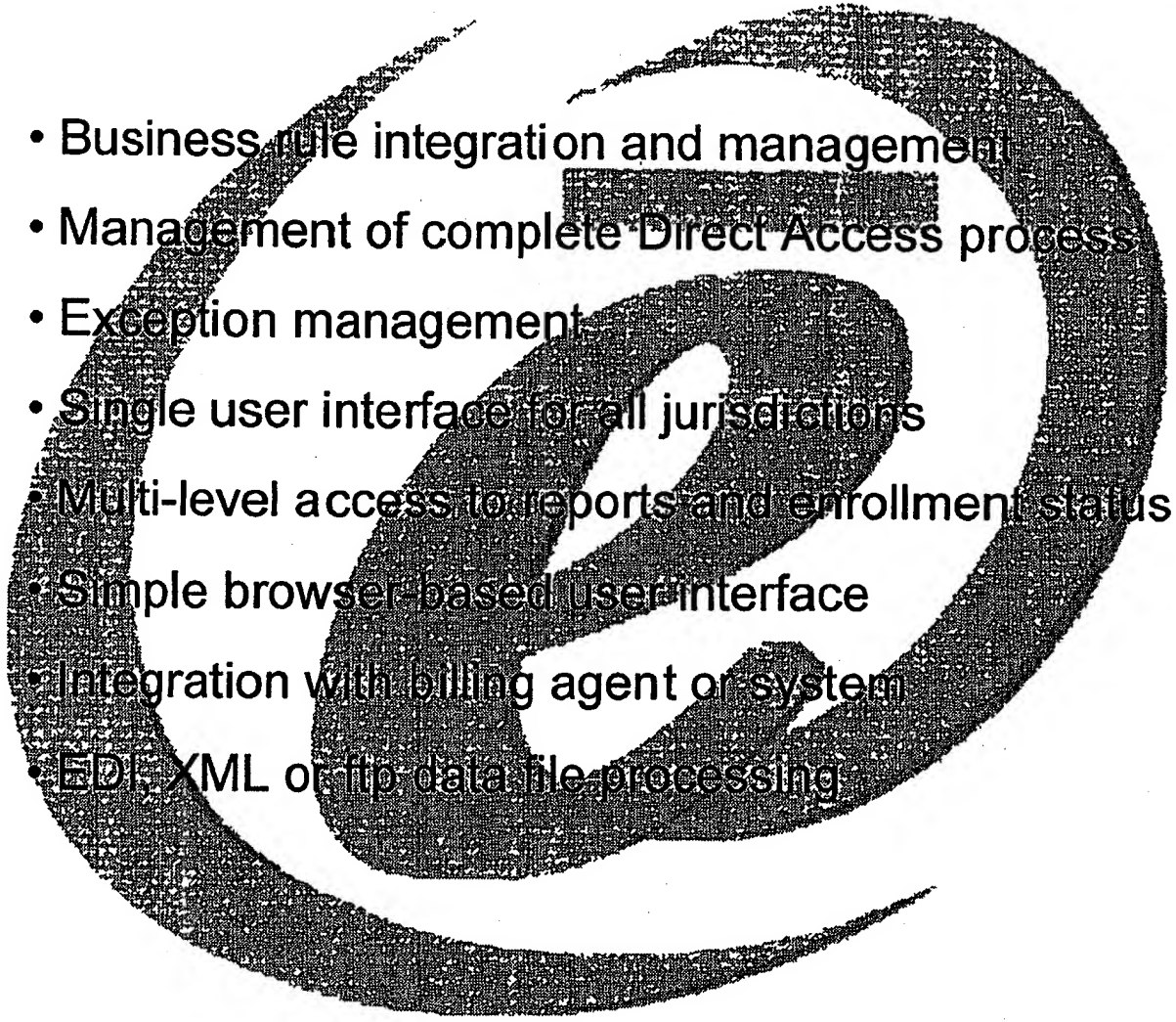
Retx.com Clearinghouse Services

Retx.com

Retx.com Services

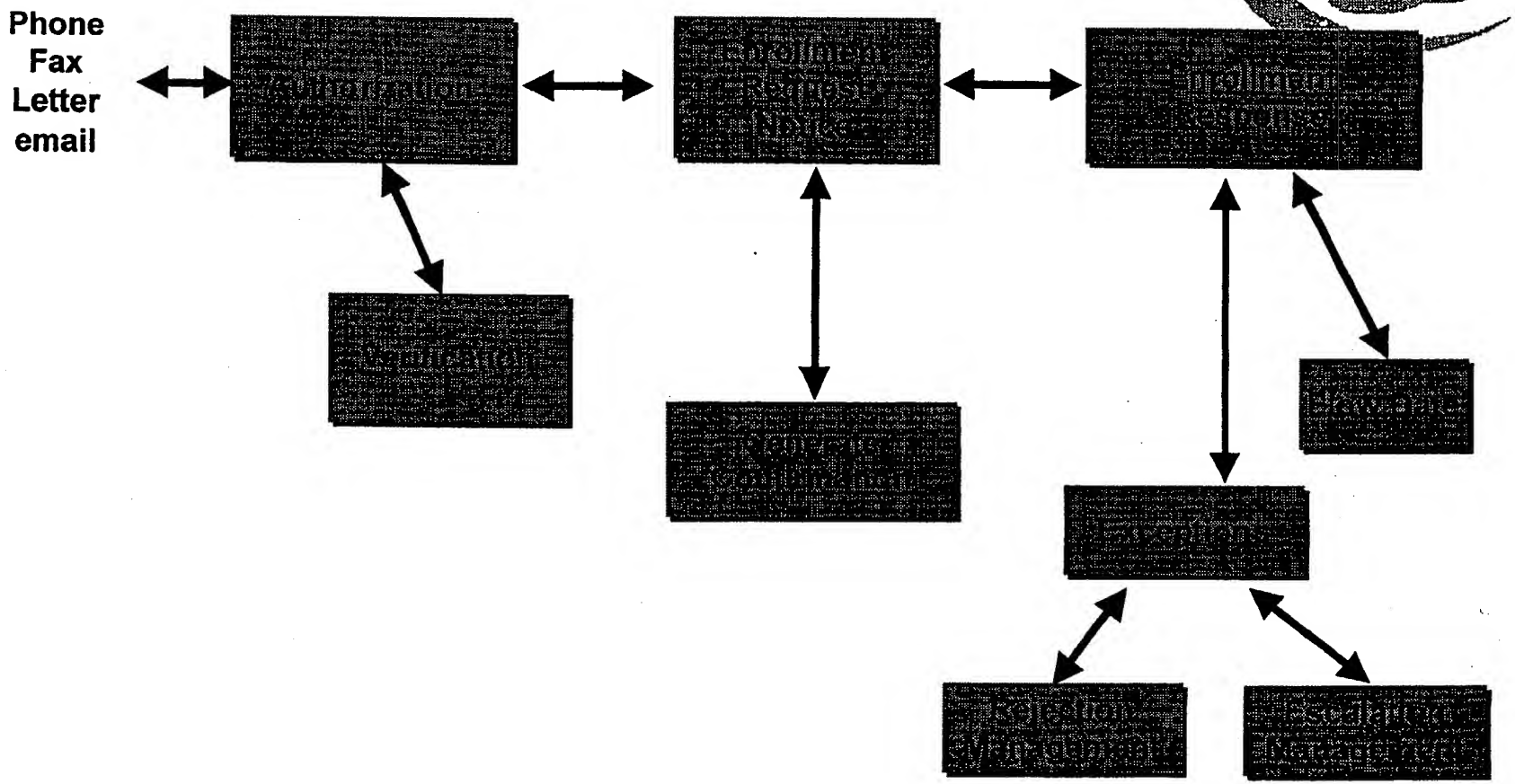


Customer Enrollment



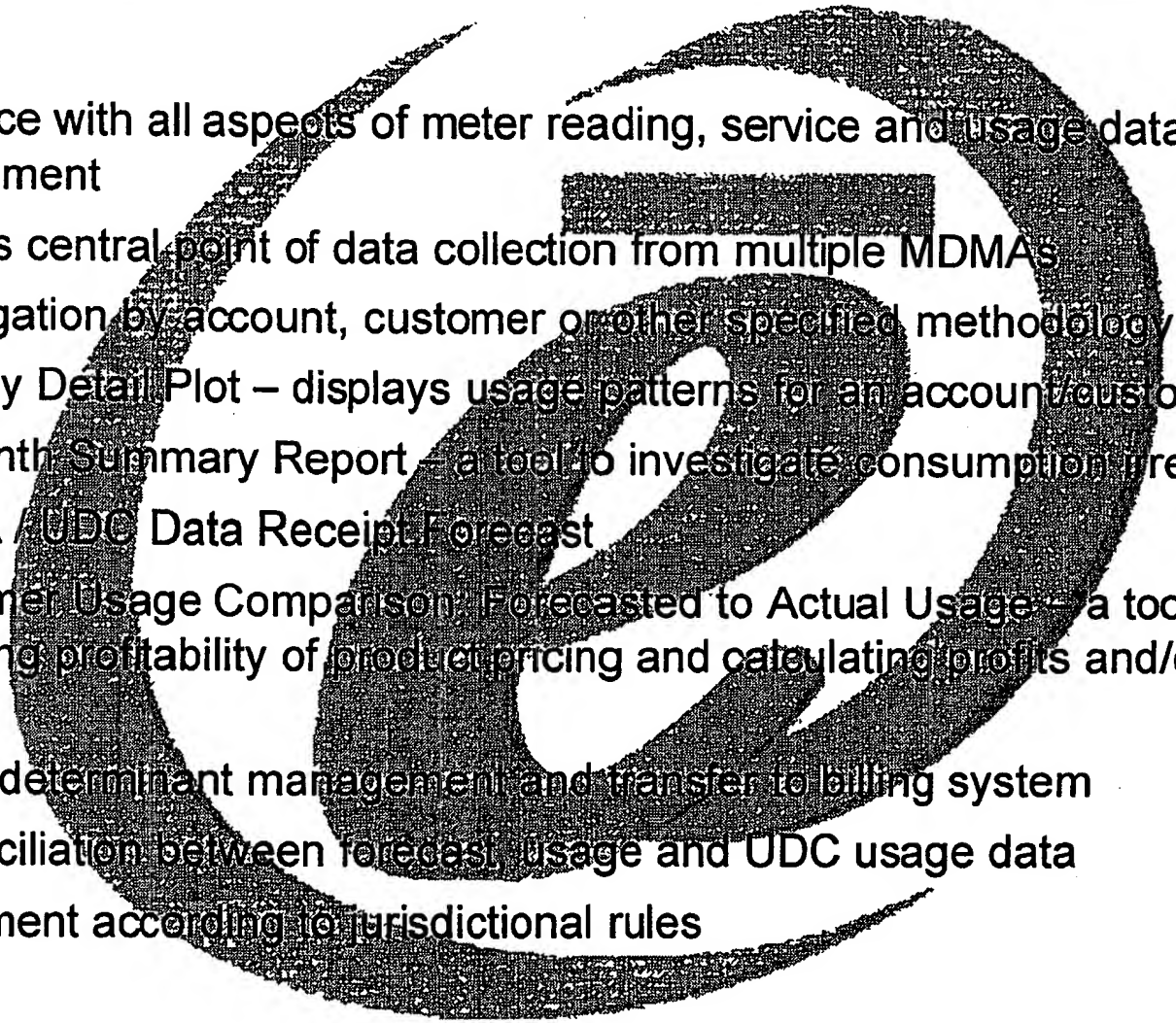
- Business rule integration and management
- Management of complete Direct Access process
- Exception management
- Single user interface for all jurisdictions
- Multi-level access to reports and enrollment status
- Simple browser-based user interface
- Integration with billing agent or system
- EDI, XML or ftp data file processing

Typical Customer Enrollment Process



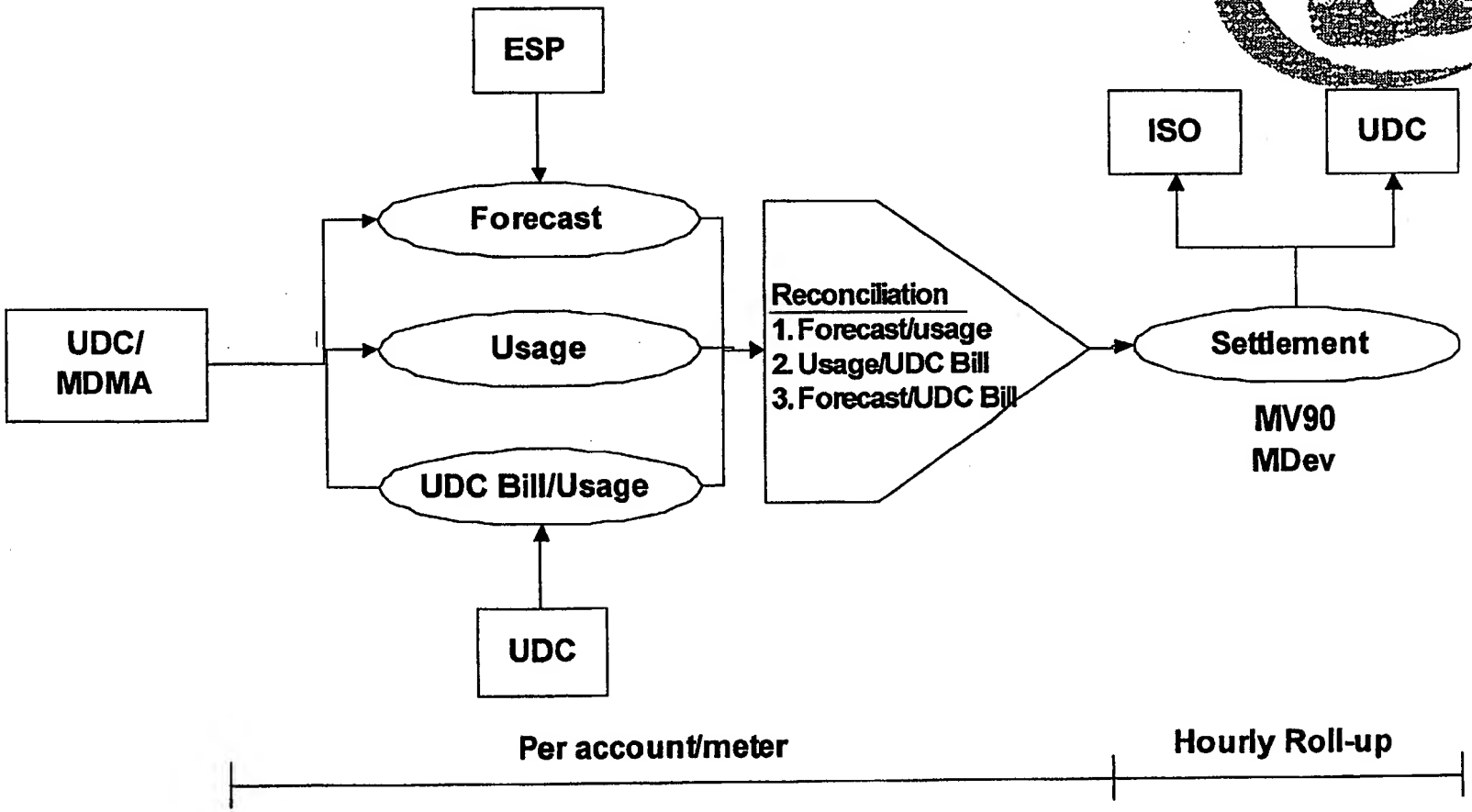
Retx.com

Reading, Aggregation, Reconciliation & Settlements

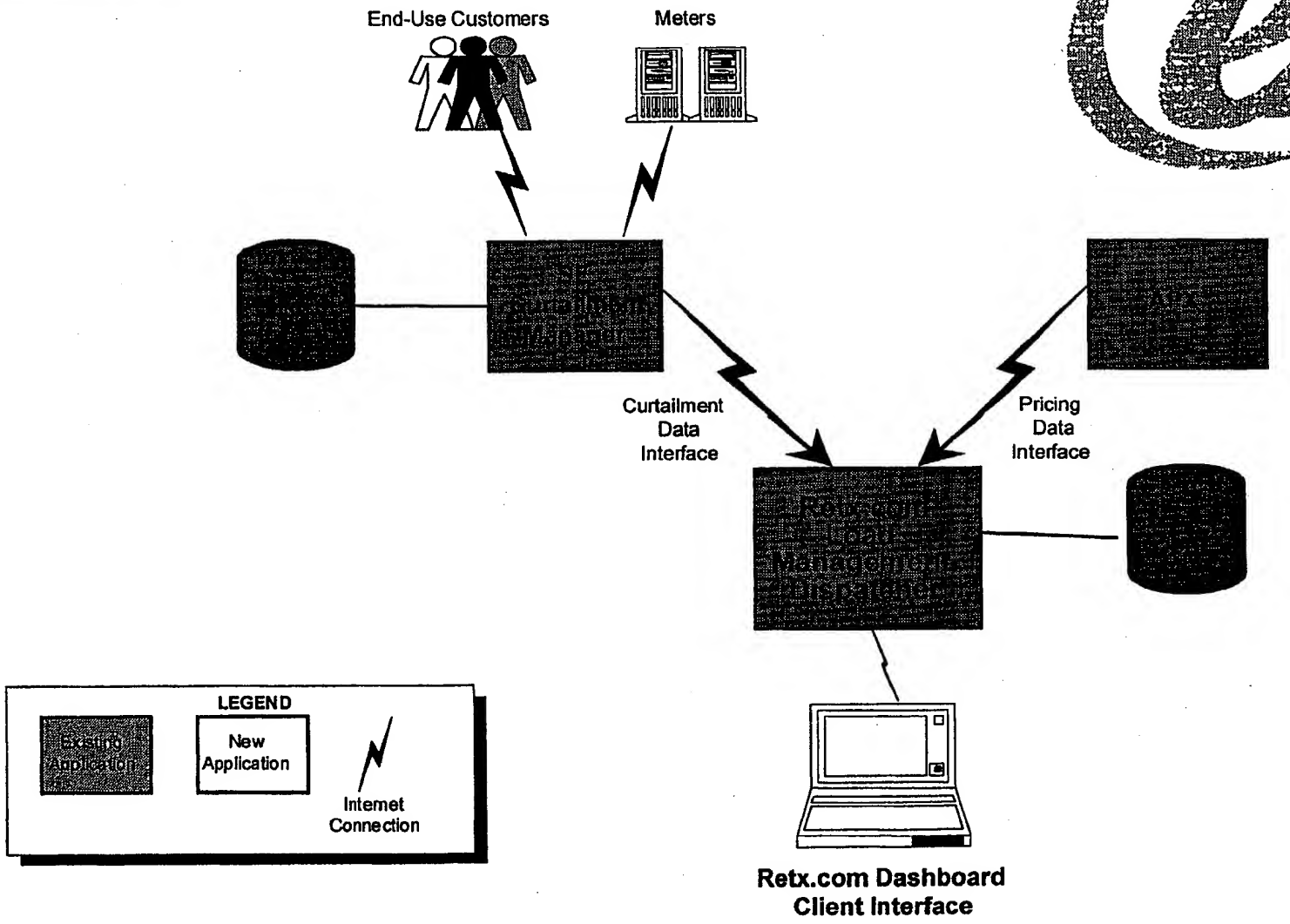


- Interface with all aspects of meter reading, service and usage data management
- MDR is central point of data collection from multiple MDMAs
- Aggregation by account, customer or other specified methodology
- Monthly Detail Plot – displays usage patterns for an account/customer.
- 15-Month Summary Report – a tool to investigate consumption irregularities.
- MDMA / UDC Data Receipt Forecast
- Customer Usage Comparison: Forecasted to Actual Usage – a tool to assist in evaluating profitability of product pricing and calculating profits and/or shared savings.
- Billing determinant management and transfer to billing system
- Reconciliation between forecast, usage and UDC usage data
- Settlement according to jurisdictional rules

Retx.com Reconciliation & Settlements Process

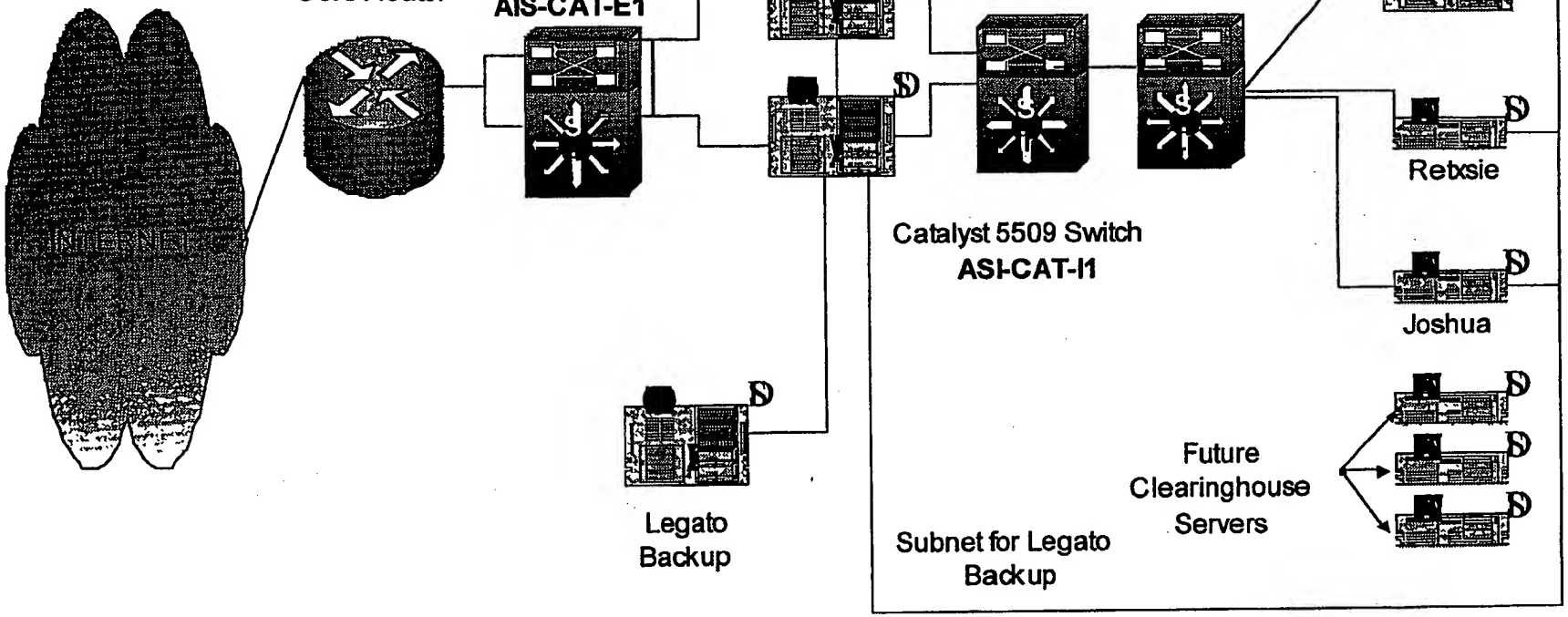


Retx.com Load Management Dispatcher Service



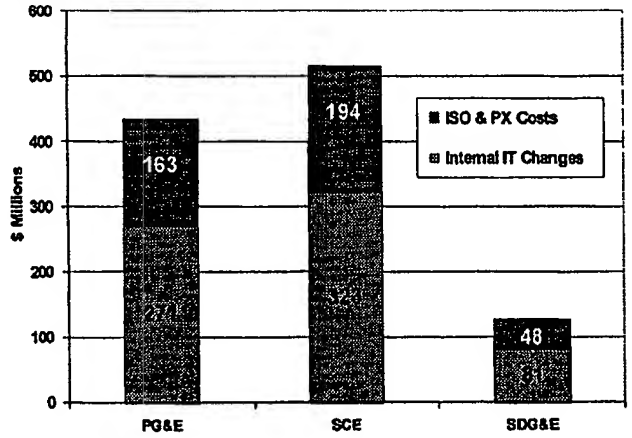
Retx.com

Retx.com Enterprise Hosting Environment



Retx.com

Retx.com Pricing Structure



- One-Time Charge for Project Set-Up
- Possible One-Time State Certification Charge
- Transaction-Based Fees
  - Contract Length
  - Forecast Accuracy
  - # Applications

Retx.com

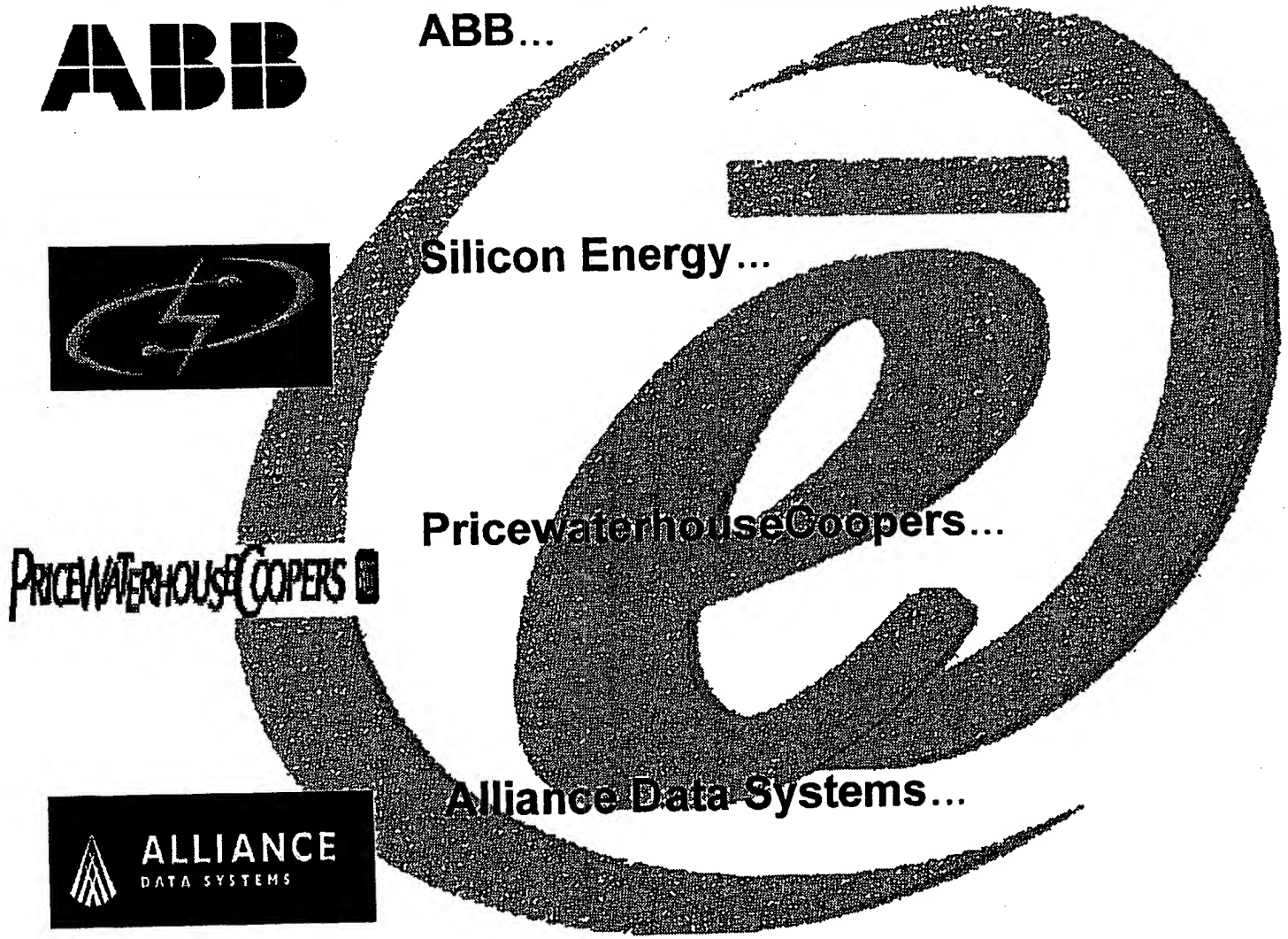
Retx.com Summary

Retx.com

Company Background

- Privately Held Company Founded in 1998
- Retail Energy Market Focus
- Veteran Management Team with Industry Expertise
- Active Participants in Uniform Business Rules
- Atlanta HQ; Satellite Offices in Dallas, Chicago, Portland

Business Partners



Retx.com

Why Work With Retx.com?

- High tech business partners enable the energy Silicon Nation
- Very price competitive vs. multinational conglomerates
- Participation in regulatory proceedings, working group meetings, establishing deregulation standards & state uniform business rules
- Not solely focused on big name, high return industry accounts
- Underdog mentality: young, hungry, nimble, fast moving startup
- No bureaucracy = expeditious decision making process
- Consulting firms selling hours; Retx creating industry
- Focus on web-based B2B cost efficient applications
- Convergence of Clearinghouse Model w/ Application Service Provider

Invention Disclosure Form (*Annex 3)*

1. Name of Invention

Electricity price determination in real-time

2. Inventor(s)

Leif Gustafson

3. Background

There is a constant demand to make the electricity market as efficient as possible. To have a well working marketplace within a deregulated market it is essential that the consumption side is exposed to real time prices.

4. State of the Art

Today, were electricity is deregulated, electricity can be traded at different types of marketplaces. Contracts can be traded for short and long term periods. In both a sell and buy situation it can be necessary to hedge against price fluctuations. In order to build an effective marketplace it is essential that the short term prices shows the actual "value of electricity" so that producers and consumers can react on these prices. To create a marketplace were both the buy and sell side can react on price information an infrastructure must be in place that support both sides with actual price information.

In the case when electricity is traded on exchanges, price information will be available for the members and those who have access to the information system. The prices set by an exchange provide the exchange members with a tool that they can use for determining how to run their business in the most cost efficient manner. For example, a process industry may choose to only perform very energy demanding tasks if the electricity price is at a level where process can be carried out with profit. As another example, a manufacture may choose to use another way to produce steam by gas or oil if the electricity price is over a certain level.

5. Problem

However, today there is no infrastructure in place to support different types of electric equipment with actual price information. This means there is no way to program equipment to react on actual price information. The electricity systems today are designed based of the fact electricity today cost a fix price, normally the same price all over the year or a price that can vary a little between seasons or between day/night.

6. Solution

By feeding real time price information from an exchange directly to the equipment or the meter central, the end consumer is enabled to control his/her power consumption more efficiently. Thus, the end consumer can take advantage of low prices as well as reduce consumption when price exceeds some limit.

Power consumption for end consumers can then be controlled using the current electricity price as a controlling parameter. The price information can be transmitted to each end consumer in a number of different ways, for example as a signal modulated on the power supply line, via Internet access or wireless transmission. Thus, in a preferred implementation a unit is located at the premises of each end-consumer. The unit is programmed by the end

consumer and controls power consuming activities at the end-consumer. The electricity exchange feeds the system with up-dated price information.

7. Advantages

By enabling all end consumers to adapt their power consumption with respect to the current electricity price. The entire electricity market will become more efficient and electricity will be produced and consumed in a way, which minimises the overall cost. The real time price fluctuation will be lower in extreme situations. In the long run this will create a marketplace where both seller and buyer will have impact on the price. Today the producers have the market power in situation with limited production capacity.

Possible claim:

A system for controlling electricity consumption comprising:

- a central price unit having access to real-time electricity prices
- distributed control units connected to said central price unit for controlling a number of different power consuming electrical apparatuses each,
- means in said control units for continuously receiving real-time electricity prices from the central unit, and
- means in said control units for controlling the power consumed in each electrical apparatus using the received real-time price as one control parameter.

TECHNICAL FIELD

The present invention relates to an electricity distribution system, and more particularly to a system for determining and distributing the price in such a system. The invention also relates to an exchange for trading electricity.

BACKGROUND OF THE INVENTION AND PRIOR ART

A major purpose of a marketplace/trading exchange for commodities is to provide a central meeting point where people can buy and sell different commodity contracts. The people buying and selling at the market place can be referred to as investors.

The prices determined at the marketplace are generally interpreted as the "market value" of a particular contract. Generally a market place for commodities attract two different kinds of investors, hedgers and speculators.

Hedgers are people who invest money in a future contract to reduce the impact of future price changes in the market or to ensure access to a particular commodity in the future.

Speculators are people who invest money in the market when they see an economic benefit from it. For example, If a speculator is of the opinion that the price for a particular commodity contract is too high or too low, he may enter the market and buys or sells contracts in that particular commodity hoping to gain money from his transaction.

The presence of speculators in the commodity market makes a positive contribution since liquidity in the market increases. Also, any "wrong pricing" in the market will be corrected by

speculators, thereby enabling hedgers to hedge the market at a price, which is generally regarded as fair.

A commodity market that so far has had problems in attracting speculators is the electricity market. Thus, today, were electricity is deregulated, electricity can be traded at different types of marketplaces. Contracts can be traded for short and long term periods. In both a sell and buy situation it can be necessary to hedge against price fluctuations. Further, where the market is deregulated, former monopoly companies still play an important role and are most often in a position where they can set prices on their own.

As a consequence, existing electricity markets more or less have failed to attract speculators, and there is therefore a need for a trading system that will attract this type of investors. This in turn will require that prices, at which contracts are traded, are regarded as fair prices, which are not easy to manipulate.

Also, there is of course a constant demand to make the electricity market as efficient as possible.

SUMMARY

It is an object of the present invention to provide an improved trading system for trading electricity contracts.

In order to build an effective marketplace it is essential that the short term prices shows the actual "value of electricity" so that producers and consumers can react on these prices. To create a marketplace were both the buy and sell side can react on price information requires an infrastructure that support both sides with actual price information.

In the case when electricity is traded on exchanges, price information will be available for the members and those who have access to the information system. The prices set by an exchange provide the exchange members with a tool that they can use for determining how to run their business in the most cost efficient manner.

For example, a process industry may choose to only perform very energy demanding tasks if the electricity price is at a level where process can be carried out with profit. As another example, a manufacture may choose to use another way to produce steam by gas or oil if the electricity price is over a certain level.

However, today there is no infrastructure in place to support different types of electric equipment with actual price information. This means there is no way to program equipment to react on actual price information. The electricity systems today are designed based of the fact electricity today cost a fix price, normally the same price all over the year or a price that can vary a little between seasons or between day/night.

By feeding real time price information from an exchange directly to the equipment or the meter central, the end consumer is enabled to control his/her power consumption more efficiently. Thus, the end consumer can take advantage of low prices as well as reduce consumption when price exceeds some limit.

By enabling all end consumers to adapt their power consumption with respect to the current electricity price. The entire electricity market will become more efficient and electricity

will be produced and consumed in a way, which minimizes the overall cost. The real time price fluctuation will be lower in extreme situations. In the long run this will create a marketplace where both seller and buyer will have impact on the price. Today the producers have the market power in situation with limited production capacity.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will now be described in more detail by way of non-limiting examples and with reference to the accompanying drawings, in which:

Fig. 1 is a general view of an automated exchange system for trading electricity contracts.

DESCRIPTION OF PREFERRED EMBODIMENTS

I CLAIM

1. An electricity distribution system comprising a number of producers and a number of consumers, each consumer receiving electrical power from a common electrical network interconnecting all producers with each of the consumers, the system further comprising:

- a trading system for trading electricity contracts corresponding to electricity to be distributed on said electricity distribution system,
- means interconnecting each consumer with said trading system, enabling each consumer to receive real time prices from the trading system, and
- an automated mechanism located in the system whereby each consumer can adapt their instantaneous power consumption in response to the real time prices received from the trading system.

Deleted: ¶

ABSTRACT

(Fig. 1)

"Christel Sahlin" <christel.sahlin@bergenstrahle.se>

To: Staffan Sandström/OMT/OMGROUP@OMGROUP
cc:
Subject: SV: ny ansökan

2001-09-20 15:03

Hej Staffan! Text och ritningar har kommit fram i god ordning. Skickar ordern i morgon!(senast)
Vårt aktnr är (HH) 45975.

Christel

-----Ursprungligt meddelande-----
Från: Staffan Sandström [SMTP:staffan.sandstrom@omgroup.com]
Skickat: den 20 september 2001 12:38
Till: christel.sahlin@bergenstrahle.se
Ämne: ny ansökan

Christel,

Översänder underlag för ny prioritetsgrundande ansökan i US.

Vänligen använd John Lastovas tjänster (NIxon & Vanderhye).

Sökande är OM Technology AB

Uppfinnare är (han är svensk)

Leif Gustafson
Barsbrovägen 6
175 69 Järfälla

Vår ref är OM 007

Vänligen bekräfta mottagande av dessa instruktioner och tillse att ansökan inlämnas så snart som möjligt (senast den 25 September)

(See attached file: OM007.doc)

mvh

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Att. J. Lastova

Your ref

Our ref HH/CS 45975 OM 007

Date 21 September 2001

New Patent Application in USA
Applicant: OM Technology AB

Dear Sirs,

Please file a new patent application in accordance with the following instructions and the enclosed documents.

docketed

Application for	Patent in USA
Priority	None
Applicant	OM Technology AB SE-105 78 Stockholm Sweden
Inventor	Leif GUSTAFSON Barsbrovägen 6 SE-175 69 Järfälla, Sweden Mr. Gustafson is a Swedish citizen
To be Filed	on Friday 21 September 2001
Annuities	By Patrafee AB, Box 9604, SE-117 91 Stockholm, Fax +46 8 7205172
Enclosures	English text, 4 drawings, diskette
Remarks	Please send prepared necessary forms In absence of instructions please keep the application in force

Please acknowledge safe receipt of this letter by return facsimile.

Yours faithfully,
BERGENSTRÅHLE & LINDVALL AB

Hans Hagström

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